

AMENDMENTS TO THE CLAIMS

1. (Currently amended): An image sensor, comprising:

a photosensitive region;

a voltage boosting circuit, ~~which produces~~ said voltage boosting circuit producing a boosted reset voltage on a reset line at a level higher ~~level then~~ than a power supply output voltage level, said voltage boosting circuit comprising a first capacitor, and at least one switching element; and

a voltage protection circuit, ~~which is~~ said voltage protection circuit being connected to said reset line~~[[,]]~~ and ~~which protects~~ protecting at least one transistor against being forward biased by said boosted reset voltage.

2. (Currently amended): An image sensor as in claim 1, wherein said voltage protection circuit ~~includes~~ further comprises at least one additional transistor of a type which can not be forward biased by said boosted reset voltage.

3. (Currently amended): An image sensor as in claim 1, wherein said voltage boosting circuit further comprises ~~includes a first capacitor, and~~ first and second switching elements, ~~which~~ wherein said capacitor is first precharged at one plate by said first switching element, and subsequently isolated at said one plate by said second switching element, and biased at the other plate to produce an output voltage which is increased to a boosted voltage related to an amount of said bias added to an amount of said precharge.

4. (Original): An image sensor as in claim 3, wherein said second switching element is one which is not forward biased by a voltage that is greater than the power supply voltage.

5. (Original): An image sensor as in claim 4, wherein said second switching element is an N type switching transistor.

6. (Original): An image sensor as in claim 4, wherein said second switching element includes first and second series connected switching transistors.

7. (Original): An image sensor as in claim 1, further comprising an output switch, which is capable of isolating against a voltage higher than a supply voltage, which is selectively turned on and off based on a level of boosting.

8. (Original): An image sensor as in claim 7, wherein said output switch further comprises a first passing transistor and a second shorting transistor, said first passing transistor in series between said boosted reset voltage and an output line, and said second shorting transistor connected between said output line and ground.

9. (Original): An image sensor as in claim 8, wherein said first passing transistor is an NMOS type passing transistor, and said shorting transistor is a PMOS type shorting transistor.

10. (Original): An image sensor as in claim 3, further comprising a second capacitor, charged to a different voltage than said first capacitor, to produce a second boosted output.

11. (Original): An image sensor as in claim 10, wherein one end of each of said first and second capacitors are charged by the same switch.

12. (Original): An image sensor as in claim 1, further comprising a row driver circuitry, which uses a first line as a row select, and a second line, intended for row select of a different row than a currently selected row, for a reset line.

13. (Original): An image sensor as in claim 11, further comprising a row driver circuitry, which uses a first line as a row select, and second line, intended for row select of a different row than a currently selected row, for a reset line.

14. (Currently amended): A method, comprising:

~~carrying out an operation to increase~~ increasing a level of an output reset signal to form a boosted level voltage, which is greater than a power supply voltage;
~~and~~

isolating said boosted level voltage; and

biasing said boosted level voltage to produce an output voltage which is related to an amount of said bias added to an amount of said power supply voltage.

~~using a switching circuit to isolate said reset signal from at least the power supply voltage, which switching circuit can withstand a voltage higher then said power supply voltage.~~